

Amendment Under 37 C.F.R. § 1.111
USSN 09/981,743
Attorney Docket Q66747
February 14, 2005

REMARKS

By way of a Preliminary Amendment, claims 21-28 are pending in the application. Of these, claims 21 is independent form with claims 22-28 depending therefrom. Claim 21 is directed to an apparatus for conditioning the atmosphere in a vacuum chamber. The apparatus includes a vacuum line including the vacuum chamber and comprising a pumping apparatus as well as an isolation means enabling the disturbance caused by the pumping apparatus to the vacuum to be reduced.

The isolation means is discussed in the specification beginning on page 14 at line 17. According to the invention, there is provided an isolation enclosure which is a sealed enclosure that forms a mechanically rigid assembly. The primary pump 3, gas treatment means 5 and gas analyzer means 9, 12, and 16 are provided in the isolation enclosure. The isolation enclosure is provided with temperature monitoring and regulation apparatus 24 making it possible to regulate the temperature of the contents of the isolation enclosure to avoid transmitting thermal disturbances to the outside. In addition, the isolation enclosure is provided with an active vibration-compensation means 25 which includes vibration sensors associated mechanically with the isolation enclosure 23 and vibration generators controlled to produce vibrations in phase opposition with the vibrations produced by the contents of the isolation enclosure.

In the Office Action Claim 26 was objected to because of informalities. Claims 21 and 22 were rejected under 35 U.S.C. § 102(b) as being anticipated by Reimer et al. Claims 23 and 27 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Reimer et al. in view of

Amendment Under 37 C.F.R. § 1.111
USSN 09/981,743
Attorney Docket Q66747
February 14, 2005

Curwen. Claims 21, 27 and 28 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 16, 17 and 19 respectively, of U.S. Patent No. 6,316,045. Claims 22-25 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 16 of U.S. Patent No. 6,316,045 in view of Reimer et al. Claim 27 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claim 17 of U.S. Patent No. 6,316,045.

Claims 26 and 27 have been amended to eliminate the noted informality. Additionally, new claim 29 has been added which patentably distinguishes over the prior art.

Claims 21 and 22 – Rejection under 35 U.S.C. §102(a)

Beginning first with the rejection of claims 21 and 22 based on Reimer, et al., the Examiner contends that Reimer, et al. discloses an isolation means at page 8, lines 27-28. This portion of Reimer, et al. states as follows:

In addition, the pump 165c should not be excessively noisy to allow operation within the clean or gray room. A sufficiently low noise level below 65dB and preferably less than about 55dB. This is achieved by reducing mechanical vibrations and gas compression noises.

The reference further states that the pump should have a low-level of vibrations during operation. This is the extent of the disclosure relied upon by the Examiner concerning the isolation means. Applicants respectfully traverse this rejection based on the following.

Amendment Under 37 C.F.R. § 1.111
USSN 09/981,743
Attorney Docket Q66747
February 14, 2005

The "isolation means" limitation in claim 21 is in means-plus-function form. Thus, it must be interpreted under § 112 (sixth paragraph). In order for a reference to teach this feature, it must disclose the exact function (enabling the disturbance caused by the pumping apparatus to the vacuum chamber to be reduced) and, furthermore, the reference must disclose the same or equivalent structure as the structure of the isolation means in the present application.

The isolation means disclosed in the specification includes the mechanically-rigid enclosure 23; the temperature monitoring and regulation apparatus 24; and the vibration-compensating means 25, as discussed above. In contrast, the only structure disclosed in Reimer, et al. for reducing vibration is to use a pump that has low-level vibrations. This structure is clearly not the same or equivalent to the structure of the isolation means of the present invention. On this basis, Applicants respectfully traverse the rejection of claim 21.

Claims 23 and 27 – Rejection under 35 U.S.C. §103(a)

With respect to the § 103 rejection of claims 23 and 27 based on Reimer, et al. and Curwen, Curwen does not compensate for the deficiencies discussed above with respect to respect to Reimer, et al. Curwen discloses a vibration isolation system for a machine which may be a linear reciprocating compressor of the type illustrated in US-3,937,600 i.e. a "resonant compressor driven by electrodynamic linear motors" to be used "in refrigeration and air conditioning equipment" (see col.1, l.7 13). Curwen merely discloses providing a counter balance mass 38 which can be moved along the length of discharge tubes 34. Such an arrangement is clearly quite different from the isolation means of the present invention.

Amendment Under 37 C.F.R. § 1.111
USSN 09/981,743
Attorney Docket Q66747
February 14, 2005

Claims 21, 27 and 28 – Double-patenting

A Terminal Disclaimer is also submitted herewith to obviate the obviousness-type double patenting rejection of Claims 21, 27 and 28.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Since the due date for responding fell on a Saturday, the filing of this response on Monday, February 14, 2005 is still considered timely filed.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



Brian W. Hannon
Registration No. 32,778

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE

23373
CUSTOMER NUMBER

Date: February 14, 2005